Agency for Healthcare Research and Quality
Advancing Excellence in Health Care

NATIONAL GUIDELINE CLEARINGHOUSE

General

Guideline Title

Recommendations on screening for abdominal aortic aneurysm in primary care.

Bibliographic Source(s)

Canadian Task Force on Preventive Health Care. Recommendations on screening for abdominal aortic aneurysm in primary care. CMAJ. 2017 Sep 11;189(36):E1137-E1145. [61 references] PubMed

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: Canadian Task Force on Preventive Health Care. Canadian Task Force on the Periodic Health Examination. Canadian Guide to Clinical Preventive Health Care. Ottawa (Canada): Health Canada; 1994. Screening for abdominal aortic aneurysm. p. 672-8. [19 references]

This guideline meets NGC's 2013 (revised) inclusion criteria.

NEATS Assessment

National Guideline Clearinghouse (NGC) has assessed this guideline's adherence to standards of trustworthiness, derived from the Institute of Medicine's report Clinical Practice Guidelines We Can Trust.

 = Poor  = Fair  = Good  = Very Good  = Excellent

Assessment	Standard of Trustworthiness
YES	Disclosure of Guideline Funding Source
	Disclosure and Management of Financial Conflict of Interests
	Guideline Development Group Composition

YES	Multidisciplinary Group
YES	Methodologist Involvement
▮▮▮▮▮	Patient and Public Perspectives
	Use of a Systematic Review of Evidence
▮▮▮▮▮	Search Strategy
▮▮▮▮▮	Study Selection
▮▮▮▮▮	Synthesis of Evidence
	Evidence Foundations for and Rating Strength of Recommendations
▮▮▮▮▮	Grading the Quality or Strength of Evidence
▮▮▮▮▮	Benefits and Harms of Recommendations
▮▮▮▮▮	Evidence Summary Supporting Recommendations
▮▮▮▮▮	Rating the Strength of Recommendations
▮▮▮▮▮	Specific and Unambiguous Articulation of Recommendations
▮▮▮▮▮	External Review
▮▮▮▮▮	Updating

Recommendations

Major Recommendations

The grades of recommendations (strong, weak) and grades of evidence (high, moderate, low, very low) are defined at the end of the "Major Recommendations" field.

Screening in Men

The Canadian Task Force on Preventive Health Care (CTFPHC) recommends one-time screening with ultrasonography for abdominal aortic aneurysm (AAA) of men aged 65 to 80 years (weak recommendation; moderate quality of evidence).

The CTFPHC recommends not screening men older than 80 years of age for AAA (weak recommendation; low quality of evidence).

Screening in Women

The CTFPHC recommends not screening women for AAA (strong recommendation; very low quality of evidence).

Definitions

Grading of Recommendations Assessment, Development and Evaluation (GRADE) System

High quality — Further research is very unlikely to change confidence in the estimate of effect.
Moderate quality — Further research is likely to have an important impact on confidence in the estimate of effect and may change the estimate.
Low quality — Further research is very likely to have an important impact on confidence in the estimate of effect and is likely to change the estimate.
Very low quality — The CTFPHC is very uncertain about the estimate.

Grading of Recommendations

Strong recommendations are those for which the task force is confident that the desirable effects of an intervention outweigh its undesirable effects (strong recommendation for an intervention) or that the undesirable effects of an intervention outweigh its desirable effects (strong recommendation against an intervention). A strong recommendation implies that most individuals will be best served by the recommended course of action and that the recommendation can be adopted in practice or as policy in most situations. Strong recommendations are normally based on high-quality evidence (i.e., high confidence in the estimate of the effect of an intervention). Strong recommendations may recommend in favour of an intervention (when there is high confidence of benefit) or against an intervention (when there is high confidence of harm). However, there are five circumstances in which the task force may consider a strong recommendation based on low- or very low-quality evidence:

- When low-quality evidence suggests benefit in a life-threatening situation (evidence regarding harms can be low or high)
- When low-quality evidence suggests benefit and high-quality evidence suggests harm or a very high cost
- When low-quality evidence suggests equivalence of two alternatives, but high-quality evidence of less harm for one of the competing alternatives
- When high-quality evidence suggests equivalence of two alternatives and low-quality evidence suggests harm in one alternative
- When high-quality evidence suggests modest benefits and low-/very low-quality evidence suggests possibility of catastrophic harm

Weak recommendations are those for which the desirable effects probably outweigh the undesirable effects (weak recommendation for an intervention) or undesirable effects probably outweigh the desirable effects (weak recommendation against an intervention), but appreciable uncertainty exists. Weak recommendations result when the balance between desirable and undesirable effects is small, the quality of evidence is lower, or there is more variability in the values and preferences of patients. Cases where the balance of cost and benefits is ambiguous, key stakeholders differ about the acceptability or feasibility of the implementation, and the effects on health equity are unclear are likely to result in a weak recommendation. A weak recommendation implies that most people would want the recommended course of action but that many would not. For clinicians, this means they must recognize that different choices will be appropriate for each individual, and they must help each person arrive at a management decision consistent with his or her values and preferences. Policy-making will require substantial debate and involvement of various stakeholders.

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

Abdominal aortic aneurysm

Guideline Category

Evaluation

Screening

Clinical Specialty

Family Practice

Internal Medicine

Preventive Medicine

Intended Users

Advanced Practice Nurses

Allied Health Personnel

Nurses

Physician Assistants

Physicians

Guideline Objective(s)

To present recommendations on abdominal aortic aneurysm (AAA) screening in asymptomatic adults for primary care providers

Target Population

Men aged 65 years and older and women

Interventions and Practices Considered

Screening with ultrasonography

Major Outcomes Considered

- Abdominal aortic aneurysm (AAA)-related and all-cause mortality
- AAA rupture
- 30-day mortality following emergency and elective procedures
- Impact of screening on frequency of emergency and elective procedures

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Searches of Unpublished Data

Description of Methods Used to Collect/Select the Evidence

Note from the National Guideline Clearinghouse (NGC): A systematic review was prepared by the McMaster Evidence Review and Synthesis Centre (ERSC) Team, McMaster University for the Canadian Task Force on Preventive Health Care (CTFPHC) (see the "Availability of Companion Documents" field).

Key Questions

The key questions (KQs) are listed below.

- What is the effect of one-time AAA screening using ultrasound scan on health outcomes in asymptomatic adults aged 50 years and older?
  - Does the effect of one-time screening vary between men and women, smokers and nonsmokers, older (≥65 years of age) and younger (<65 years of age) adults, adults with and without a family history of AAA, and adults of different races/ethnicities.
  - Does the effect of one-time screening vary between different screening approaches (i.e., high risk vs low risk status)?
- What is the effect of rescreening for AAA using ultrasound scan on health outcomes including AAA incidence in previously screened asymptomatic adults aged 50 years and older?
  - Does the effect of rescreening vary between men and women, smokers and nonsmokers, older (≥65 years of age) and younger (<65 years of age) adults, adults with and without a family history of AAA, and adults of different races/ethnicities.
  - Does the effect of rescreening vary between different time intervals?
- What are the harms associated with one-time and repeated AAA screening using ultrasound?

Contextual Questions

The contextual questions are listed below:

- What are patients' preferences and values regarding AAA screening?
- What is the cost-effectiveness of screening for AAA?
- How well does ultrasound administered in a general practice setting or which can be administered in a general practice setting compare to standard ultrasound in a clinic or hospital setting for the detection of AAA?

Search Strategy

The literature search updated the search done for the 2014 USPSTF review on screening of AAA using the same search strategy. The USPSTF review was rated as a high quality systematic review, using A Measurement Tool to Assess Systematic Reviews (AMSTAR). The librarian peer reviewed the search done by the USPSTF using the Peer Review Electronic Search Strategies methodology checklist. Medline, EMBASE, and Cochrane Central Register of Controlled Trials were searched. PubMed was also searched for any relevant publisher-supplied nonindexed citations. The searches covered the time period since the last update of the USPSTF search (January 2013-April 2015). English and French studies, as well reference lists of on-topic systematic reviews, were reviewed. Studies included in the USPSTF review were included in our database and passed through the screening process with citations identified in the search.

A search for overdiagnosis/overtreatment was conducted in Medline, EMBASE, and Cochrane Central Register of Controlled Trials from January 2005 to April 2015. Citations were managed through the Web-based systematic review platform DistillerSR.

A separate search was conducted for the contextual questions in MEDLINE, Embase and PsychINFO (patient preferences question only) for the time period of 2005 to February/March 2015. A focused web-based grey literature search was also undertaken using Google advanced search (limited to Canada) and

the Canadian section of Canadian Agency for Drugs and Technologies in Health (CADTH)'s Grey Matters search to look for recent on-topic sources that provided Canadian specific information to heal inform the contextual questions.

Eligibility Criteria

The inclusion/exclusion criteria are described in Table I in the systematic review.

Study Selection

Two reviewers independently selected studies for possible inclusion. At the title and abstract level, any citation that was selected for inclusion by either reviewer moved to full text review. At that level any disagreement was discussed between reviewers and a third party was involved to help reach consensus, as necessary. For contextual questions, data extraction was conducted by one reviewer. There was no assessment of the methodological quality of studies to answer the contextual questions.

Studies included in the USPSTF review were included in the database and passed through the screening process with citations identified in the search.

Refer to the full version of the systematic review for additional information, including information on contextual questions.

Number of Source Documents

Search Results

After removing duplicates, 186 citations from the search, as well as 15 citations included from the U.S. Preventive Services Task Force (USPSTF) review, were identified for screening. At title and abstract screening, 167 studies were excluded, leaving 34 studies to be screened at full-text. Of those, 19 studies that did not meet the inclusion criteria were identified, as well as 6 systematic reviews. References lists of the included systematic reviews were searched, but no additional studies were added. Nine studies met the inclusion criteria. See Figure 1 in the systematic review (see "Availability of Companion Documents" field).

Overdiagnosis/Overtreatment Search Results

After removing duplicates, 117 citations were identified for screening. Fourteen articles were screened at full-text. One study met the inclusion criteria. See Figure 2 in the systematic review (see "Availability of Companion Documents" field).

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Grading of Recommendations Assessment, Development and Evaluation (GRADE) System

High quality — Further research is very unlikely to change confidence in the estimate of effect.
Moderate quality — Further research is likely to have an important impact on confidence in the estimate of effect and may change the estimate.
Low quality — Further research is very likely to have an important impact on confidence in the estimate of effect and is likely to change the estimate.
Very low quality — The CTFPHC is very uncertain about the estimate.

Methods Used to Analyze the Evidence

Meta-Analysis

Review of Published Meta-Analyses

Systematic Review with Evidence Tables

Description of the Methods Used to Analyze the Evidence

Note from the National Guideline Clearinghouse (NGC): A systematic review was prepared by the McMaster Evidence Review and Synthesis Centre (ERSC) Team, McMaster University for the Canadian Task Force on Preventive Health Care (CTFPHC) (see the "Availability of Companion Documents" field).

Data Extraction and Quality Assessment

Full data extraction, including characteristics of included studies and risk of bias (assessed using the Cochrane risk of bias framework) was completed by one reviewer and verified by a second reviewer. Disagreements were resolved through consensus between the two reviewers.

With outcomes ranked as critical and important for decision-making, the Grading of Recommendations Assessment, Development, and Evaluation (GRADE) system was used to assess the strength and the quality of evidence using GRADEpro software. The quality of outcome-based bodies of evidence was assessed for risk of bias attributable to limitations in design, indirectness, inconsistency of findings, imprecision, and reporting bias (such as publication bias). Meta-analyses were conducted where appropriate.

Data Synthesis

For the binary outcomes of benefit of one-time abdominal aortic aneurysm (AAA) screening (i.e., AAA-related mortality, all-cause mortality and AAA rupture rates); and binary outcomes of harms (i.e., increase in AAA-related procedures, 30-day post-operative mortality) the evidence review and synthesis team utilized the number of events; proportion or percentage data was used to generate the summary measures of effect in the form of risk ratio (RR) using DerSimonian and Laird random effects models with Mantel-Haenszel method. The primary subgrouping in each meta-analysis was based on length of follow-up. The estimates of absolute risk reduction (ARR), absolute risk increase (ARI) and number needed to screen (NNS) were added. The NNS were calculated using the control group event rate and risk ratio with the 95% confidence interval obtained from the meta-analysis.

The benefits of repeat AAA screening were also analyzed for the outcomes of incidence of AAA, AAA-related mortality, AAA rupture rates, and all-cause mortality. As the data came from uncontrolled observational studies, the rates/proportion across studies were pooled using the DerSimonian and Laird random effects models with inverse variance method to generate the summary measures of effect. The binomial confidence intervals for each proportion/rate were calculated using "Wilson score interval" method.

For continuous outcomes of harms, such as quality of life, the ERSC team utilized change from baseline data (means, standard deviations). The DerSimonian and Laird random effects model with inverse variance method were utilized to generate the summary measures of effect in the form of mean difference (MD).

For outcomes of consequences and harms of one-time AAA screening, further sensitivity analyses were conducted for rare events using Peto one-step odds ratio method to evaluate any significant changes in magnitude and direction of effect compared with the DerSimonian and Laird models. The two methods showed similar effect estimates and confidence intervals (Evidence Set [ES] 3). The Cochran Q ($\alpha = 0.05$) was employed to detect statistical heterogeneity and I^2 statistic to quantify the magnitude of statistical heterogeneity between studies where I^2 (30% to 60%) represents moderate and I^2 50% to 90%

represents substantial heterogeneity across studies. Analyses were performed using Review Manager (RevMan v 5.3; Copenhagen: The Nordic Cochrane Centre, The Cochrane Collaboration; 2014), Stata (v 12; StataCorp, College Station, Tex), and GRADEpro (GRADE Working Group, McMaster University) software packages. When studies did not provide data necessary for pooling, results are described narratively.

Refer to the full version of the systematic review for additional information, including information on contextual questions.

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

The task force is an independent panel of clinicians and methodologists that make recommendations on primary and secondary prevention in primary care (see www.canadiantaskforce.ca). These recommendations were developed by a workgroup of five members of the task force, with scientific support from staff at the Public Health Agency of Canada. The recommendations are based on a systematic review, conducted by the Evidence Review and Synthesis Centre at McMaster University (Hamilton, Ontario), which updated the 2014 review by the U.S. Preventive Services Task Force on outcomes of AAA screening with ultrasonography.

The Grading of Recommendations, Assessment, Development and Evaluation (GRADE) system was used to determine the quality of evidence and strength of recommendations (see the "Rating Scheme for the Strength of the Evidence" and "Rating Scheme for the Strength of the Recommendations" fields).

Rating Scheme for the Strength of the Recommendations

Grading of Recommendations

Strong recommendations are those for which the task force is confident that the desirable effects of an intervention outweigh its undesirable effects (strong recommendation for an intervention) or that the undesirable effects of an intervention outweigh its desirable effects (strong recommendation against an intervention). A strong recommendation implies that most individuals will be best served by the recommended course of action and that the recommendation can be adopted in practice or as policy in most situations. Strong recommendations are normally based on high-quality evidence (i.e., high confidence in the estimate of the effect of an intervention). Strong recommendations may recommend in favour of an intervention (when there is high confidence of benefit) or against an intervention (when there is high confidence of harm). However, there are five circumstances in which the task force may consider a strong recommendation based on low- or very low-quality evidence:

- When low-quality evidence suggests benefit in a life-threatening situation (evidence regarding harms can be low or high)
- When low-quality evidence suggests benefit and high-quality evidence suggests harm or a very high cost
- When low-quality evidence suggests equivalence of two alternatives, but high-quality evidence of less harm for one of the competing alternatives
- When high-quality evidence suggests equivalence of two alternatives and low-quality evidence suggests harm in one alternative
- When high-quality evidence suggests modest benefits and low-/very low-quality evidence suggests possibility of catastrophic harm

Weak recommendations are those for which the desirable effects probably outweigh the undesirable effects (weak recommendation for an intervention) or undesirable effects probably outweigh the desirable effects (weak recommendation against an intervention), but appreciable uncertainty exists.

Weak recommendations result when the balance between desirable and undesirable effects is small, the quality of evidence is lower, or there is more variability in the values and preferences of patients. Cases where the balance of cost and benefits is ambiguous, key stakeholders differ about the acceptability or feasibility of the implementation, and the effects on health equity are unclear are likely to result in a weak recommendation. A weak recommendation implies that most people would want the recommended course of action but that many would not. For clinicians, this means they must recognize that different choices will be appropriate for each individual, and they must help each person arrive at a management decision consistent with his or her values and preferences. Policy-making will require substantial debate and involvement of various stakeholders.

Cost Analysis

Resource Use

The systematic review reported cost-effectiveness of screening for abdominal aortic aneurysm (AAA) from findings of two systematic reviews, a randomized controlled trial (RCT) and three modelling studies. AAA screening was cost effective, with an incremental cost-efficiency ratio of less than US$30,000 per quality-adjusted life-year gained. A recent report on outcomes of the Swedish nationwide screening program concluded that screening for AAA remains cost effective, despite declining prevalence and a shift to more expensive procedures.

Refer to the "Feasibility, Acceptability, Cost and Equity" section in the original guideline document for additional information.

Method of Guideline Validation

Comparison with Guidelines from Other Groups

External Peer Review

Internal Peer Review

Description of Method of Guideline Validation

The Feasibility, Acceptability, Cost and Equity (FACE) tool was used with stakeholders to gain their perspective on the priority, feasibility, acceptability, cost and equity of the recommendations (see Appendix 2 of the original guideline document (see the "Availability of Companion Documents" field).

The protocol and systematic review were reviewed by content experts and health care stakeholders.

Other Guidelines

The U.S. Preventive Services Task Force recommends that men aged 65 to 75 years who have ever smoked be screened for abdominal aortic aneurysm (AAA) with ultrasonography. The Canadian Society of Vascular Surgery's guideline recommends that men aged 65 to 75 years be screened. Table 3 in the original guideline document highlights recommendations from other guidelines.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for each recommendation (see the "Major Recommendations" field).

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Pooled results on outcomes of screening men aged 65 years and older for AAA with ultrasonography from the four randomized controlled trials (RCTs) at two points of follow-up — three to five years and 13 to 15 years — are reported in Table 2 in the original guideline document. Screening was associated with an absolute risk reduction of 1.3 fewer AAA-related deaths per 1000 men screened (0.8 to 1.6 fewer) at the three- to five-year follow-up and 3.2 fewer (0.6 to 6.0 fewer) at the 13- to 15-year follow-up. The number needed to screen to prevent one AAA-related death was 796 (95% confidence interval [CI] 621–1242) at three- to five-year follow-up and 311 (95% CI 199–1595) at 13 to 15 years.

There was no difference in all-cause mortality at the three- to five-year follow-up (p = 0.10) (low-quality evidence), whereas at 13 to 15 years, there was a very modest reduction among those screened (moderate-quality evidence).

Screening resulted in reductions in AAA rupture, emergency AAA procedures and death within 30 days of an AAA procedure (see Table 2 in the original guideline document).

See the systematic review (see the "Availability of Companion Documents" field) for the effect based on sub-groups.

Potential Harms

- In the four randomized controlled trials, screening resulted in significant increases in the overall risk of having a procedure to repair an abdominal aortic aneurysm (AAA) and the likelihood of undergoing an elective AAA repair among those screened, with its potential risk of adverse events from the surgery.
- With regard to overdiagnosis (identification of an AAA that would not have ruptured), an analysis of low-quality evidence from the 13-year follow-up of the MASS trial estimated the rate in the screen-positive group at 45% (95% confidence interval [CI] 42%–47%). The authors calculated that 17.6 (95% CI 15.0–20.2) patients would be overdiagnosed for every 1000 screened.

See the systematic review (see the "Availability of Companion Documents" field) for more specific information.

Qualifying Statements

Qualifying Statements

The views of the funding body have not influenced the content of the guideline; competing interests have been recorded and addressed. The views expressed in this article are those of the task force and do not necessarily represent those of the Public Health Agency of Canada.

Limitations

First, the literature search was restricted to English and French language papers and it is possible that potentially relevant studies published in other languages were missed. Second, there was significant statistical heterogeneity across studies which could be attributed to differences in population, sample size and length of follow-up. Third, there was insufficient evidence to answer several questions of interest including how clinical benefits of screening differ for various high versus low risk screening

approaches, or by subgroups that may influence the underlying risk of developing abdominal aortic aneurysm (AAA). Fourth, the team did not analyze the benefits of screening based on specific aortic diameter or baseline risk of rupture. Finally, there were insufficient studies reporting outcomes of interest to assess publication bias.

Gaps in Knowledge

Further work is required to assess whether screening has a differential impact on health outcomes on subgroups, including those who have ever smoked and adults with a family history of AAA, and whether there is value in rescreening all patients or rescreening specific sets within the population, such as by race or ethnicity. Future studies should also monitor the epidemiology of AAA as age-based screening may have less of a positive impact if the prevalence of AAA continues to decline in the general population. Ultimately, a more targeted approach to screening could be required.

Implementation of the Guideline

Description of Implementation Strategy

Considerations for Implementation

Male sex, family history and increasing age have all been associated with an increased risk of abdominal aortic aneurysm (AAA). A review of observational studies on the risk of AAA among smokers indicated that smokers have a higher risk of AAA than never smokers; current smokers have a higher risk of developing AAA than former smokers; and those who smoke more than 20 cigarettes a day have a higher risk of AAA than those who smoke less. In relation to growth and rupture of an AAA, a meta-analysis conducted by the RESCAN collaboration found that current smoking has a modest impact on growth of an AAA and doubles the risk of rupture. Clinicians could ask about smoking history during a discussion on screening for AAA, as patients who have ever smoked may be more interested in being screened.

There is some evidence that cardiac failure, renal impairment, chronic obstructive pulmonary disease, peripheral vascular disease, cerebrovascular disease, ischemic heart disease and diabetes are associated with greater risk of death following elective repair of an AAA. It is important that men aged 65 to 80 years with chronic health conditions such as these are aware of their particular risks from elective repair of an AAA before they decide to be screened. In contrast, men older than 80 years who do not have these conditions may choose to be screened. Increasing age and female sex are also associated with increased risk of death following AAA repair.

Ultrasonography was used to screen for AAA in the randomized controlled trials (RCTs) because of its relative ease of use and known sensitivity and specificity. A Canadian observational study indicated that, with training, providing AAA screening in a family physician setting was accurate and feasible.

Endovascular repair is less invasive than conventional surgery and has lower perioperative mortality, although long-term outcomes are similar for the two methods. No randomized trials have evaluated the benefits of screen-directed endovascular repair compared with no screening. However, in the judgment of the task force, it is reasonable to assume that benefits associated with screen-directed repair are comparable with endovascular and conventional techniques. Although the less invasive nature of endovascular repair might seem to encourage screening strategies that intervene at an earlier stage (e.g., smaller AAA size) as compared with conventional surgery, this practice is not supported by trial data. Given the less invasive nature of endovascular procedures and lower rates of perioperative death, patients may be more inclined to choose screening where this type of repair is available.

Implementation Tools

Foreign Language Translations

Mobile Device Resources

Patient Resources

Quick Reference Guides/Physician Guides

Resources

Staff Training/Competency Material

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Staying Healthy

IOM Domain

Effectiveness

Identifying Information and Availability

Bibliographic Source(s)

Canadian Task Force on Preventive Health Care. Recommendations on screening for abdominal aortic aneurysm in primary care. CMAJ. 2017 Sep 11;189(36):E1137-E1145. [61 references] PubMed

Adaptation

Not applicable: Guideline was not adapted from another source.

Date Released

2017 Sep 11

Guideline Developer(s)

Canadian Task Force on Preventive Health Care - National Government Agency [Non-U.S.]

Source(s) of Funding

Funding for the Canadian Task Force on Preventive Health Care is provided by the Public Health Agency of Canada.

Guideline Committee

Canadian Task Force on Preventive Health Care (CTFPHC)

Composition of Group That Authored the Guideline

Authors: Harminder Singh, MD, MPH, Departments of Internal Medicine and Community Health Sciences, University of Manitoba, Winnipeg, Man.; Neil Bell, MD, Department of Family Medicine, University of Alberta, Edmonton, Alta.; James A. Dickinson, MBBS, PhD, Departments of Family Medicine and Community Health Sciences, University of Calgary, Calgary, Alta.; Gabriela Lewin, MD, Department of Family Medicine, University of Ottawa, Ottawa, Ont.; Marcello Tonelli, MD, SM, Department of Medicine, University of Calgary, Calgary, Alta.; Brett Thombs, PhD, Department of Psychiatry, McGill University, Montréal, Que.; Nathalie M. Holmes, BA, Public Health Agency of Canada, Ottawa, Ont.; Alejandra Jaramillo Garcia, MSc, Public Health Agency of Canada, Ottawa, Ont.; Prinon Rahman, MSc, Public Health Agency of Canada, Ottawa, Ont.; Nicki Sims-Jones, RN, MScN, Public Health Agency of Canada, Vancouver, BC

Financial Disclosures/Conflicts of Interest

The views of the funding bodies have not influenced the content of the guideline; competing interests have been recorded and addressed.

Competing Interests

James Dickinson reports grants from the Public Health Agency of Canada, during the conduct of the study, and is an author on a recent paper reporting the West Australian trial of aortic aneurysm screening. No other competing interests were declared.

Guideline Endorser(s)

Nurse Practitioners Association of Canada - Professional Association

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: Canadian Task Force on Preventive Health Care. Canadian Task Force on the Periodic Health Examination. Canadian Guide to Clinical Preventive Health Care. Ottawa (Canada): Health Canada; 1994. Screening for abdominal aortic aneurysm. p. 672-8. [19 references]

This guideline meets NGC's 2013 (revised) inclusion criteria.

Guideline Availability

Available from the Canadian Medical Association Journal (CMAJ) Web site .

Availability of Companion Documents

The following are available:

Canadian Task Force on Preventive Health Care. Recommendations on screening for abdominal aortic aneurysm in primary care. Online appendices 1-3. CMAJ. 2017 Sep 11;189(36):E1137-45. Available from the Canadian Medical Association Journal (CMAJ) Web site .

Usman Ali M, Fitzpatrick-Lewis D, Miller J, Warren R, Kenny M, Sherifali D, Raina P. Screening for abdominal aortic aneurysm in asymptomatic adults. J Vasc Surg. 2016 Dec;64(6):1855-1868. Available from the Journal of Vascular Surgery Web site .

Fitzpatrick-Lewis D, Warren R, Usman Ali M, Kenny M, Peirson L, Rice M, Peck-Reid S, Sherifali D, Raina P. Screening for abdominal aortic aneurysm: systematic review and meta-analysis. Hamilton (ON): Evidence Review and Synthesis Centre, McMaster University; 2015 Oct 29. 96 p. Available from the Canadian Task Force on Preventive Health Care (CTFPHC) Web site .

Fitzpatrick-Lewis D, Warren R, Ali MU, Rice M, Sherifali D, Raina P. Screening for abdominal aortic aneurysm: protocol for updating the USPSTF systematic review and meta-analysis. Hamilton (ON): McMaster University; 2015 Mar 31. 20 p. Available from the CTFPHC Web site .

Recommendations on screening for abdominal aortic aneurysm in primary care. Clinician summary. Ottawa (ON): Canadian Task Force on Preventive Health Care (CTFPHC); 2017. 2 p. Available in English and French from the CTFPHC Web site.

Screening for abdominal aortic aneurysm in primary care. Clinician recommendation table. Ottawa (ON): Canadian Task Force on Preventive Health Care (CTFPHC); 2017. 1 p. Available in English and French from the CTFPHC Web site.

Patient preferences for abdominal aortic aneurysm screening: data summary. Prepared for the Canadian Task Force on Preventive Health Care. Toronto (ON): Li Ka Shing Knowledge Institute, St. Michael's Hospital; 2016 Sep 19. 13 p. Available from the CTFPHC Web site .

Screening for abdominal aortic aneurysm: clinical practice guideline. CMAJ podcast. Available from the CTFPHC Web site .

Canadian Task Force on Preventive Health Care procedure manual. Ottawa (ON): Canadian Task Force on Preventive Health Care (CTFPHC); 2014 Mar. 83 p. Available from the CTFPHC Web site .

Putting prevention into practice: GRADE (Grades of recommendation, assessment, development, and evaluation). Ottawa (ON): Canadian Task Force on Preventive Health Care (CTFPHC); 2011. 2 p. Available in English and French from the CTFPHC Web site.

Additional companions, including updated evidence tables and excluded studies are available from the CTFPHC Web site .

A continuing professional development (CPD) activity related to this guideline is available on the CMAJ Web site .

There is a CTFPHC mobile app for primary care practitioners available for download from the CTFPHC Web site .

Patient Resources

The following is available:

Abdominal aortic aneurysm (AAA) screening. Patient tool - benefits vs harms. Calgary (AB): University of Calgary; 2017. 1 p. Available in English and French from the Canadian Task Force on Preventive Health Care (CTFPHC) Web site.

NGC Status

This summary was completed by ECRI on December 7, 1999. The information was verified by the guideline developer on February 24, 2000. This summary was updated by ECRI Institute on October 17, 2017. The updated information was verified by the guideline developer on October 30, 2017.

This NEATS assessment was completed by ECRI Institute on September 26, 2017. The information was verified by the guideline developer on October 30, 2017.

Copyright Statement

Disclaimer

NGC Disclaimer

The National Guideline Clearinghouseâ„¢ (NGC) does not develop, produce, approve, or endorse the guidelines represented on this site.

All guidelines summarized by NGC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public or private organizations, other government agencies, health care organizations or plans, and similar entities.

Guidelines represented on the NGC Web site are submitted by guideline developers, and are screened solely to determine that they meet the NGC Inclusion Criteria.

NGC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or clinical efficacy or effectiveness of the clinical practice guidelines and related materials represented on this site. Moreover, the views and opinions of developers or authors of guidelines represented on this site do not necessarily state or reflect those of NGC, AHRQ, or its contractor ECRI Institute, and inclusion or hosting of guidelines in NGC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding guideline content are directed to contact the guideline developer.